



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Joseph KANNER et al

Serial No.: 10/661,606

Filed: September 15, 2003

For: Increasing Bioavailability of Carotenoids

Examiner:

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Group Art Unit: 1761

Attorney
Docket: 25629

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CORRECTED FILING RECEIPT

Sir:

Attached is a copy of the official filing receipt received from the United States Patent and Trademark Office in the above application. Issuance of a corrected filing receipt is respectfully requested.

Please add to "Domestic Priority data as claimed by applicant":

This is a CIP of PCT/IL02/00398 05/21/2002
Which claims priority from 09/915,527 07/27/2001
And 60/292,953 05/24/2001

A copy of the first page of the specification and the Declaration setting forth the above is attached hereto.

Respectfully submitted,

Sol Sheinbein
Registration No. 25,457

Date: January 1, 2004



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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/661,606	09/15/2003	1761	5742	25629	8	260	11

CONFIRMATION NO. 9306

G.E. EHRLICH (1995) LTD.
c/o ANTHONY CASTORINA
SUITE 207
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ARLINGTON, VA 22202

FILING RECEIPT



OC000000011436359

Date Mailed: 12/09/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

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Rina Granit, Rehovot, ISRAEL;
Arieh Levy, Rehovot, ISRAEL;

Assignment For Published Patent Application

Agricultural Research Organization, The Volcani Center;

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 12/05/2003

Projected Publication Date: 03/17/2005

Non-Publication Request: No

Early Publication Request: No

Title

Increasing bioavailability of carotenoids

Preliminary Class

426

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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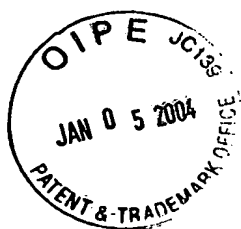
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APPLICATION FOR PATENT

Inventors: Joseph Kanner, Rina Granit and Arielevy

Title: INCREASING BIOAVAILABILITY OF CAROTENOIDS

This is a Continuation-in-Part of PCT/IL02/00398, filed May 21, 2002, which claims priority from U.S. Patent Application No. 09/915,527, filed July 27, 2001, now abandoned and U.S. Provisional Patent Application No. 60/292,953, filed May 24, 2001, now expired.

FIELD AND BACKGROUND OF THE INVENTION

The present invention relates to a novel method of increasing the bioavailability of carotenoids. More particularly, the present invention relates to methods of extracting oleoresin, increasing the content of free carotenoids in sources of carotenoids rich in fatty acid esterified carotenoids, red pepper in particular. The present invention further relates to the extraction of free carotenoids from the sources of carotenoids rich in fatty acid esterified carotenoids and to food and feed additives that comprise free carotenoids.

Carotenoids, chemistry and biochemistry:

The carotenoids are isoprenoid compounds, with an extensive conjugated double bond system, and are biosynthesized from acetyl coenzyme-A via mevalonic acid as a branch of the great isoprenoid or terpenoid pathway (Britton, 1996). They are divided into two main classes; carotenes [acyclic (lycopene) and cyclic (β -carotene)], and xanthophylls (e.g., capsanthin). In contrast to carotenes, which are pure polyene hydrocarbons, xanthophylls also contain hydroxy, epoxy and keto groups. Only plants, and microorganisms synthesize carotenoids, however they are reach by feed and food animal or human tissues, which have the ability to absorb, modify and store these compounds (Goodwin; 1980).

Of the over 640 carotenoids found in nature, about 20 are present in a typical human diet. Of these carotenoids, only 14 and some of their metabolites have been identified in blood and tissues (Gerster, 1997; Khackick et al., 1995; Oshima, et al., 1997).

Docket No.
25629

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

INCREASING BIOAVAILABILITY OF CAROTENOIDS

the specification of which



is attached hereto.



was filed on _____ as United States Application No. or PCT

International Application Number _____

and was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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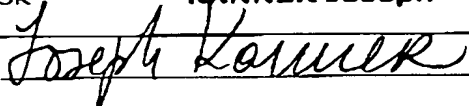
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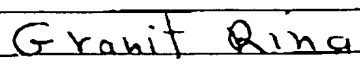
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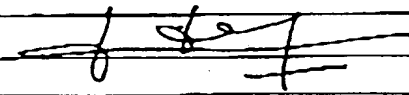
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